TRADITIONAL KNOWLEDGE ANNUAL REPORT
DEPARTMENT OF RESOURCES, WILDLIFE AND ECONOMIC DEVELOPMENT
TRADITIONAL KNOWLEDGE INITIATIVES
1994 - 1997

Northwest Territories Resources, Wildlife & Economic Development

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ABSTRACT

This report was prepared for the review of traditional knowledge initiatives commissioned by the Minister of Resources, Wildlife and Economic Development (RWED), Mr. Stephen Kakfwi. It is a summary of traditional knowledge activities undertaken by RWED between 1994 and 1997.

The activities are organized into categories selected by the GNWT Interdepartmental Traditional Knowledge Working Committee. These categories are consistent with the stated priorities of the government.

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INTRODUCTION

This report was prepared for the review of traditional knowledge initiatives commissioned by the Minister of Resources, Wildlife and Economic Development (RWED), Mr. Stephen Kakfwi. It is a summary of traditional knowledge activities undertaken by RWED between 1994 and 1997.

The activities are organized into categories selected by the GNWT Interdepartmental Traditional Knowledge Working Committee. These categories are consistent with the stated priorities of the government .

The recent amalgamation of the three former departments (Renewable Resources, Energy, Mines and Petroleum Resources, and Economic Development and Tourism) presented some challenges in putting together this information but it was accomplished with appreciable interest, cooperation and support from regional and headquarters staff . The report covers activities carried out by most divisions, with the exception of Policy, Legislation and Communications, Remote Sensing, Strategic Planning and the Business Credit Corporation. Information was not sought from the NWT Development Corporation, although some of their activities may have a traditional knowledge component.

An earlier report on Traditional Knowledge Use by the Department of Renewable Resources is included as an appendix to reflect efforts made to work in ways that are culturally-appropriate and sensitive to aboriginal values. These are also within the intent of the Traditional Knowledge Policy.

Some of the activities included in this report were initiated prior to the adoption of the GNWT Traditional Knowledge Policy in November 1993. The Policy formed part of the government's response to the recommendations of the Traditional Knowledge Working Group in 1991. The Department of Renewable Resources played an active role in work that led to the adoption of the Policy and was assigned responsibility for its implementation.

Thank you to all those who contributed to this report.

POLICY AND MANDATE

The mandate of the Minister and the Department of Resources, Wildlife and Economic Development (RWED) is to promote economic self sufficiency and growth through the sustainable development of natural resources and enhance the creation of new, sustainable opportunities in the traditional and wage economies.

The Minister and the Department will:

> Promote and support the use of scientific research, traditional knowledge, and public education to develop a better understanding of ecosystem dynamics and sustainable development in the Northwest Territories.

In directing the Department to carry out its mandate the Minister will adhere to the following principles:

> Natural resources and wildlife are managed using public input, scientific knowledge, and indigenous knowledge.
>
> Programs and services should be delivered in a manner which respects the beliefs, customs, knowledge, values, and languages of the people served.

Cited from the Draft *Establishment Policy Resources, Wildlife and Economic Development - April 1997*

DEPARTMENTAL TRADITIONAL KNOWLEDGE INITIATIVES

1. TRADITIONAL KNOWLEDGE RESEARCH

Community, regional, territorial & NGO research supported by the Department.

Inuvik Region:

- Success of the **North American Waterfowl Banding Program** for ducks was greatly enhanced by using Dene traditional environmental knowledge for trapsite selection.

- The production of **interpretive exhibits**, including traditional clothing, hunting and fishing implements, etc. for visitors' centres in the Inuvik Region require use of TK. Exhibits are being identified for the visitor's centre at Nitainlaii and the production of some of them will require TK to produce historically accurate cultural artifacts.

Sahtu Region:

- The Regional Biologist surveyed trappers in the region to supplement his **marten studies** with traditional knowledge.

- The Deline Renewable Resource Officer has been documenting **Sahtu Dene place names** in relation to traditional resource use and knowledge on an ongoing basis.

- Success of the **North American Waterfowl Banding Program** for ducks was greatly enhanced by using Dene traditional environmental knowledge for trapsite selection. In the next phase of this project (1997-98), all the Sahtu research will be done by the trappers themselves, who have received training in scientific methods from the Regional Biologist.

North Slave Region:

- The Department is actively involved in the **Esker/Wolf Habitat** and **Barrenland Grizzly Bear projects** and participates in the **Wolverine and Bathurst Caribou projects** when possible. With the exception of the grizzly bear project, these are affiliated with the West Kitikmeot/Slave Study (WKSS).

  The North Slave Regional Biologist is the principal researcher for the **Esker/Wolf Habitat Project** and has initiated discussions with Treaty 8 and Treaty 11 committees and communities regarding the possibility of parallel TK studies and local involvement. So far, interest has been greatest in local involvement in the current study and plans are underway to include youths and Elders in this project. Participation by local people this summer may stimulate a companion TK study and the Regional Biologist is available to assist if requested. A list of possible questions to include in such a study has been given to the Department's TK Co-ordinator.

The Esker/Wolf project also collaborates with the **Esker Habitat Study** co-ordinated by the federal government. This project includes a team member from Nunavut who incorporates TK into the project and takes information back to the communities for assessment and confirmation in an interactive fashion.

South Slave Region:

- Traditional and local knowledge is used in **bison research and management programs**, e.g. Hook Lake wood bison recovery project.

- TK is incorporated in the planning, execution and reporting of **information and research** on moose population ecology, abundance of small mammals in relation to logging practices, abundance of songbirds in relation to logging practices, abundance of snowshoe hare after fire, and the long term monitoring of snowshoe hare and small mammal populations. This is accomplished by working closely with the local Integrated Resource Management Planning (IRMP) committees and hiring local workers with traditional skills.

Kitikmeot Region:

- Kitikmeot has sponsored several small and focussed studies, including those directed at establishing **new muskox quotas** in the communities of Taloyoak and Gjoa Haven. These studies involve collecting hunter observations and collections of traditional muskox distributions.

- The **Naonayaotit TK Study of the West Kitikmeot** is coordinated and facilitated by Kitikmeot regional staff. This is a comprehensive partnership study, (West Kitikmeot Slave Study or WKSS) involving funding from RWED headquarters, BHP, Echo Bay Mines, Parks Canada, and Kennecott Canada.

  The study involves collecting TK from Elders from the four communities in the West Kitikmeot, in an effort to provide guidance on how HTOs may be able to participate in development reviews, and involves all species and traditional activities that have taken place in this area. This is a multi-year project that totals more than $200,000 in funding, and is being conducted by the Kugluktuk Angonaitit Association (KAA), with assistance from BHP staff. Interviews, transcriptions, proofing, and reports are all being completed by KAA staff.

- The Department is a partner in the **Naonayaotit TK Study of grizzly bears**, which is managed by the Kugluktuk Angoniatit Association and BHP, and will merge TK with scientific investigation.

Keewatin Region:

- Funding for a **polar bear TK pilot project** was obtained from the Wildlife Management Division and administered by regional staff. Inuit Elders of Arviat were asked specific questions regarding polar bears. The complete interview was done in Inuktitut and taped on a tape recorder. The information was then transcribed to written form.

- All HTOs received a list of items regarding polar bears and were asked to choose priorities. This priority list will enable the Department to focus on specific areas when obtaining TK.

Baffin Region:

- Over the past 13 years, the Regional Biologist has worked with local Hunters' and Trappers' Organizations, the Regional Wildlife Organization and 44 Inuit Elders and hunters to develop a method for documenting TK of South Baffin Inuit regarding **historical caribou abundance, distribution and ecology**.

  From Inuit knowledge, he has determined, for the first time, long-term patterns and cycles of this caribou population. He has used ecological explanations and predictions of knowledgable Elders and hunters to develop fruitful scientific studies based on Inuit ecological concepts. Preliminary results of satellite telemetry, vegetation and habitat studies, caribou condition sampling and other studies suggest that a high correlation between Inuit observations and those of scientific studies is likely, once both forms of knowledge are adequately understood and integrated.

  This study has produced an **English and Inuktitut series of five posters** showing changes in the distribution and abundance of South Baffin caribou from 1910 to 1993. These posters have been distributed to all HTOs on southern Baffin Island, the Qikiqtaaluk Wildlife Board, the Nunavut Wildlife Management Board and the Nunavut Research Institute.

- In March 1997, the scientific journal, ***Arctic***, published the collection and analysis of this traditional ecological knowledge about a population of arctic tundra caribou. A second article on Inuit knowledge of long-term changes in a population of arctic tundra caribou has been submitted to *Arctic*.

- The Regional Biologist has also been researching and documenting TK of South Baffin Inuit regarding **caribou movements**. From this knowledge, he has been able to determine long-range patterns and cycles of caribou movement. He has been comparing this information with data gathered using satellite telemetry. The correlation he is discovering may provide important scientific support for use of TK research.

- During 1996-97, the Regional Biologist and Acting Regional Manager for Baffin held a series of meetings with six HTOs to incorporate Inuit knowledge and concerns into a strategy for future research of caribou on northern Baffin Island. They have produced the report ***Development of a Research Strategy for Northerners Conducting Research***.

- In February 1997, the **Reindeer Biologist with the Greenland Natural Resources Institute** visited the Baffin Regional Biologist in part to learn the methods and results produced during this research.

- In March 1997, the Regional Biologist, six HTOs and the Qikiqtaaluk Wildlife Board (QWB) initiated a **cooperative study into Inuit knowledge about caribou** on northern Baffin

Island and northern Melville Peninsula. The initial work for this project is being funded jointly by RWED and Parks Canada.

- **Oral history research** has been at the root of programming for the Baffin Visitor Centre (Unikaarvik), the Angmarlik Visitor Centre in Pangnirtung and the forthcoming Pond Inlet Nature Centre.

- TK was the basis for development of **Katannalik Park** near Lake Harbour which was a corridor for Inuit travel in historic and pre-historic times.

Headquarters:

- The **TK Coordinator** maintains ongoing involvement with various local, regional, national and international initiatives that promote TK research and the development of related appropriate methodologies, e.g. Canadian Polar Commission, Dene Cultural Institute, Gwich'in Renewable Resource Board, Mackenzie Basin Impact Study, Nunavut Research Institute, Pond Inlet Elders Council, and Igloolik Inullariit Elders Society.

- The Department provided funding, organizational support & participation to the 1993-1996 **Northern River Basin Study**, which included a major traditional knowledge research component as well as western scientific research. The Deputy Minister was a member of the Board that directed this major three-year study of the Athabasca, Peace and Slave River areas, which involved traditional knowledge experts from Alberta and the NWT.

- Funding, support and participation have been provided to the ongoing **West Kitikmeot /Slave Regional Study (WKSS)** process, which stresses the equal value of TK and western science. Studies will take place over the next 5 years in this region of the Western Arctic affected by mining development. Some of the TK projects funded under this initiative include a Dogrib study of caribou movements, a habitat study of Dogrib traditional territory, and a community-based monitoring /baseline study in Lutsel K'e which will allow the community to use knowledge held by Elders to detect changes in its socio-economic environment.

- The Department coordinated the GNWT review and presentation to the Traditional Knowledge Session, **BHP Federal Environmental Assessment Review** in 1996. This was the first time in the north that a proponent was required to use traditional as well as western scientific information in an environmental review.

- The Department continues to support the **Sensitive Habitats Mapping Project,** undertaken by the Beverly-Qamanirjuaq Caribou Management Board in 1996, through provision of work space and facilities from the Wildlife and Fisheries Division and Remote Sensing Centre. The Board is working in partnership with the Nunavut Planning Commission to incorporate local environmental knowledge from the Keewatin Region, and has recently approached Wildlife Habitat Canada for funding to collect this information from South Slave Communities.

- The **Integrated Resource Management Program** provided funding to Fort Resolution, Fort Simpson, and Fort Providence communities to enable collection of TK related to land and resource use.

- The Department promoted research and production of a report by the Rae Lakes Dogrib Traditional Government Project on ***Traditional Methods Used by the Dogrib to Redirect Caribou***. The Ungulate Biologist in the Wildlife & Fisheries Division is currently working with Dogrib and Inuit Elders who are advising her on traditional methods to divert caribou and whether these are applicable to caribou at mine tailings ponds. Cooperation for research on seasonal movements of caribou (Bathurst Herd) has been secured and this year the Elders' knowledge is being compiled through a specific project funded by WKSS.

- **Ministerial Nomination.** The Minister nominated northern aboriginal people involved in promoting and carrying out TK research for a Northern Science Award.

- **Wildlife Health Program**. The experience and traditional knowledge of wildlife harvesters is incorporated into ongoing monitoring of the occurrence of diseases in wildlife. Hunters are an integral part of detecting changes in wildlife, and their observations play a role in monitoring health status and directing specific research studies.

- In 1994, the Beverly Qamanirjuaq Caribou Management Board published *Review and Recommendations for Fire management on Forested Range of the Beverly and Qamanirjuaq Herds of Caribou.* This report used information from communities to identify **caribou hunting priority zones** and was funded by the Board and Department of Renewable Resources.

- The former Department of Economic Development and Tourism was instrumental in developing the EDA program which requires searching out options and information from local groups and individuals. Many of the people involved in the process have significant traditional knowledge that is incorporated into EDA initiatives on a regional level.

All Regions:

- **Use of TK in tourism**. TK has been used to verify historic events, places and lifestyles. Coupled with this is the translation of text into the local aboriginal language(s). This work uses TK and transposes it into an interpretive framework typical of methodologies used today.

2. CROSS CULTURAL TRAINING

Reflects a continuum of training from Aurora College to on-the-land experiences.

Sahtu Region:

- Renewable Resource Councils, with RWED support, are continuing with **trapper training programs.**

- The Regional Biologist has been sharing the links between his scientific research and traditional knowledge of the region with the public through his **column for the local newspaper in Norman Wells.**

Kitikmeot Region:

- Regional and Area Office staff are expected to work closely and effectively with their clients, including **travelling to and working with numerous outpost camps**, often with unilingual harvesters. This relationship required that non-aboriginal staff be sensitive and aware of differences in cultural perspectives.

Keewatin Region:

- A one-week **on-the-land session** for senior managers from headquarters, delivered by a local Inuit outfitter, was held near Baker Lake.

Baffin Region:

- North Baffin Renewable Resources Regional staff have occasionally taken headquarters staff **on-the-land** in collaboration with Inuit hunters and trappers.

Headquarters:

- The Traditional Knowledge Coordinator organized **TK workshops in Rae and Yellowknife** and has distributed information to staff through electronic mail.

- Planning and ground work toward providing **on-the-land experiences for staff** was carried out in collaboration with a northern aboriginal contractor and regional staff.

- A **Cross-Cultural Science and Environment Education Summer Institute for Educators** has been coordinated in partnership with Dept. of Education, Culture and Employment and the University of Lethbridge. This is a credit course for teachers from across the NWT.

- The Department provided financial support for the **Pond Inlet Theatre Group's** travel and for a video of their presentation, "Giving Voice to Our Elders," which explains the continuing importance of seal hunting to the Inuit. The TK Coordinator helped organize a visit for these Inuit youth to the Rae community and a Dogrib camp.

- The Wildlife and Fisheries Division prepared a draft text to **introduce staff to the Dogrib people** as a pilot project that could be expanded to other regions. Collaboration has been sought from the Dogrib Renewable Resources Committee to complete this document.

All Regions:

- As a response to **TK workshops** organized for headquarters staff last year, interest has been expressed by some regional staff in organizing their own workshops.

3. POLICY DEVELOPMENT SUPPORTING TK

Developing new methods of providing government services, developing a northern workforce, supporting the TK Coordinator, and evaluating qualifications for northern employment.

Sahtu Region:

- Efforts have been made to **incorporate Dene conservation ethics into the *Wildlife Act*,** especially in regard to reducing caribou wastage and related bear nuisance problems.

- Consultation in the Sahtu revealed that TK holders around Colville Lake object to research that involves touching of wildlife for research purposes (i.e. if the animal is not killed for food). The Department is respecting the wishes of this community by not putting **satellite collars** on caribou in the Colville Lake area and looking at other ways of supplementing data collection (1997).

Kitikmeot Region:

- Every Kitikmeot HTO has signed a Memorandum of Understanding with RWED that supports a reporting **relationship** between it and our staff in communities. Every aspect of program delivery is monitored by HTOs, ensuring that programs are delivered in an appropriate fashion.

Baffin Region:

- Department staff jointly **developed processes with Hunters' & Trappers' Organizations** in Baffin communities to deliver programs and carry out enforcement activities in ways that respect Inuit traditions and are more culturally-sensitive.

Headquarters:

- The new Department's Draft **Establishment Policy** (1997) recognizes, as a principle, that "natural resources and wildlife are managed using public input, scientific and indigenous knowledge". For a number of years previous this was also identified as a goal of the Department of Renewable Resources in its Strategic Plans and Business Plans.

- The Draft **Establishment Policy** (1997) also includes the principle, taken from the GNWT Traditional Knowledge Policy, that "Government programs and services should be administered in a manner consistent with the beliefs, customs, knowledge, values and languages of the people being served".

- Examples of programs that promote the traditional economy and encourage the sustained use of traditional knowledge are the **Co-operative Agreements on Arts and Crafts, Performing Arts, and Community Initiatives under the Canada/NWT Economic Development Agreement** (EDA). Under these programs, more than $8 million in funds were negotiated by the Dept. of Economic Development and Tourism to encourage activities in these sectors. Although the federal government has not negotiated further bi-lateral Economic Development Agreements, the Department used the EDA program as the foundation for its new **Community Initiatives Program**. Planning for this program was initiated in the fiscal year 1995/96 with delivery beginning in the fiscal year 1996/97.

- As a way of recognizing certain **Elders as professionals** in their field, these Elders are paid a contractor's fee, rather than an honorarium, depending on their services.

- Since 1994, the Department has provided enabling funds for the **Dogrib Renewable Resources Committee**, to help community representatives meet and discuss among themselves and with department staff, environmental and wildlife resource issues pertinent to their region. This collaboration between the Department and communities (including Elders) has improved communications on both sides, and resulted in more traditional expertise being included in the planning and delivery of departmental programs. Two Elders sit as permanent representatives on this committee.

- The Department of Renewable Resources allocated a P/Y for a **departmental Traditional Knowledge Coordinator**. A departmental TK Committee was established and subsequently another P/Y was allocated for a **GNWT Inter-departmental TK Coordinator** after the Department of Renewable Resources was mandated to coordinate implementation of the Traditional Knowledge Policy. Both TK positions have been affected by the recent amalgamation of RWED.

- Both TK Coordinators' job descriptions identify time to **meet and consult with Elders** in their own setting as part of the incumbent's professional development.

- A professional development workshop was planned for senior management on **traditional leadership and decision-making**, to be delivered by a northern aboriginal cultural organization.

All Regions:

- There has been increased awareness amongst staff in all regions regarding enforcement of the **Migratory Birds Convention Act**. The Minister and senior department officials have lobbied the federal government and won some relaxations in support of traditional seasonal

aboriginal hunting rights. The Department supports the protocol it has recommended, mainly to allow the spring hunt.

4. COMMUNITY DEVELOPMENT &/OR COLLABORATION

Community based activities that support the use of TK.

Inuvik Region:

- Local environmental knowledge has been valuable in the development of renewable resources. An example is the **herring fishery potential in Tuktoyaktuk**. The fish stock potential was well known to local Inuvialuit but was not initially recognized by the Department of Fisheries and Oceans.

- **Test fisheries in Inuvik.** The Mackenzie Delta Test Fisheries EDA-funded project is a recent case of integrating local knowledge into project design and implementation. Local aboriginal organizations were heavily involved in designing the project. Local fishermen were involved in selecting appropriate technology, identifying timing and locations for catches with best species mix, selecting skilled staff for plant work and other operational aspects.

- **Inuvik Traditional Economy:** ED&T Inuvik Region budgeted for sport hunts in Paulatuk. Over a dozen potential applicants for funding were initially identified in the community. Unfortunately, only nine to ten polar bear hunt tags were available in order to maintain sustainable commercial hunt levels. ED&T did not have an equitable method of identifying the best applicants. Consultations were held with the Inuvialuit Game Council (IGC) and local HTA organizations and the situation was cooperatively managed. The local TK of IGC staff helped optimize the number of dog teams, assisted in choosing the most credible applicants, and provided a means of marketing the new businesses.

- **Local hiring for interpretive activities in Inuvik Region.** The Department has made an effort to hire local people as staff for the visitor's centre at Nitainlaii. Robert Alexie Sr. still lives the traditional lifestyle. Hence, in directing visitors to regional attractions he is quite often asked to talk about his life and living off the land. This subject is of great interest to tourists. The establishment of Gwich'in Territorial Park and cultural exhibits of the Western Arctic Regional Visitors centre will involve even greater use of TK and local people in interpretation activities.

Fort Simpson Region:

- Traditional knowledge is used in updating and coordinating **values-at-risk data** and **guidelines for fire protection**.

- Community Elders are involved in **trapper training** sessions.

- Community groups are involved in **forest management planning** which includes the broader topics considered under integrated resource management planning.

- The Department provides direct assistance for setting up and running **student camps**.

North Slave Region:

- In the North Slave Region, innovative **arts and crafts programs** have been developed. These programs often serve multiple purposes. Traditional skills like tanning, are being passed on by the Elders to some of the children at the local school. These skills are then used for the creation of new products and for creating replicas of traditional products that are displayed at the Arctic Coast Tourism Centre.

  Not only are items created for tourists and arts and crafts sales, but the students are learning traditional skills and are learning to work with Elders. This gives students practical experience in the local language through talking with Elders and acting as interpreters with others who cannot speak directly to the elder mentors.

- In cooperation with headquarters, the Region delivered a **trapper training course to inmates** at Yellowknife Correctional Centre. The second part of the course was held in a camp on the land and instructed, in part, by a Yellowknives Dene Elder.

South Slave Region:

- Staff collaborate with the **Renewable Resources Technology Program** and **Western Arctic Leadership Program** in delivery of on-the-land-training for students, which includes TK.

- TK was used to develop **values-at-risk guidelines for forest fire management**.

- **Use of traditional skills.** In the South Slave Region, traditional skills are valued. The regional goal is to create opportunities that promote the use of local skills. They realize, that imported ideas that are not culturally sensitive or do not consider local knowledge and lack grassroots participation have often failed.

- Yearly **forest fire prevention plans and training plans** use traditional knowledge, as do the **prescribed burns/habitat enhancement projects** in Hook Lake, the Mackenzie Bison Sanctuary and Mills Lake.

Kitikmeot Region:

- Regional staff have collaborated and provided logistical support for several Kitikmeot Inuit Association (KIA) **youth camps** at which Inuit youth have had the opportunity to learn from their Elders.

- The **Kitikmeot Trapper Training School** is logistically and financially supported by RWED, and provides direct training by experienced older trappers to those starting out. TK

is particularly applicable in trapline management topics and exercises. More than 20 young trappers have benefited from this course so far.

- **Kitikmeot High School Careers and Technology Studies** courses are participated in and actively supported by RWED staff on an ongoing basis. This involvement includes providing equipment, supervising students, developing courses and curriculum, and giving lectures and presentations to classes. These courses provide practical on-the-land experience to youth in which they can learn to participate in the traditional economy. This is in direct support of recommendations made by the KIA Elders Forum. Courses are provided by High Schools, with significant participation from elder harvesters.

- **Arts and crafts**, have always been an important industry in the Kitikmeot. Skills that were once used in day-to-day activities like sewing, have been used to develop new and original products. These products will soon be available to the public.

  In Taloyoak, new **dolls** were designed by community women with the assistance of a professional doll designer. Local women brought the sewing expertise and skills they developed working on the original Packing Dolls, to the project. The "expert doll maker" worked with "traditional expert doll makers" and new products were created which are being test marketed.

  Doll making may not be considered "traditional" by everyone but, as times have moved on, traditional skills once used to make clothing have changed. Now the skills are used to create dolls that generate money for the sewer's family. In addition to the creation of the dolls, the traditional sewing skills are being used by the women to enter the business world. They have an understanding of how dolls are created and have had some success in the past selling the Spence Bay Packing Dolls. Now the women have firmly entered the world of marketing and financing and they are improving on these new skills every day.

- Other Kitikmeot projects that rely on traditional skills have been completed in the **renewable resources and business sectors**. Muskox hunts, some small businesses and fishing projects have all relied on the skills of local people to create projects that have a maximum possibility of success.

Keewatin Region:

- The Keewatin Region, like all regions, has been implementing TK into its program delivery and the way normal business is carried out. This is especially true of **renewable resource based economic development** projects where TK involvement starts in the planning stages. Local input is sought from the HTA's and, in the case of fisheries projects, from fishermen and their organizations.

- Staff collaborated with the Keewatin Divisional Board of Education and Elders on two projects. The first being the **Land Travel Skills** and the second the **Trapper Training course**. Both are curriculum courses used in the schools. To date, the Trapper Training course has been delivered in Coral Harbour and Arviat.

- The **caribou range fire effects** project is a joint effort of the Department and the Beverly and Qamanirjuaq Caribou Management Board to maintain the equilibrium of the herd.

Baffin Region:

- In the Baffin Region, parks have been a departmental priority over the past few years. TK has been the foundation in the development of both **historical parks** (Kekerten, Quamaarviit) and the **day use park** being created in Cape Dorset (Mlikjuaq).

  From a tourism standpoint, TK and culture are what tourists want exposure to. In the Baffin Region, virtually all **tourism programming**, including guide training, development of attractions, and exhibits are premised on TK.

- The Baffin Region has also used TK in **exploratory fishing projects** and has worked tirelessly to introduce to young people to **carving techniques** that have been mastered by their Elders.

- The Department has developed ways to better involve Inuit hunters and trappers in **polar bear research**. This has resulted in increased support for and greater community involvement in departmental research and management of polar bears, increased appreciation for Inuit TK by department staff and Inuit, increased efficiency, reduced costs, and some employment opportunities for community members.

- Staff participation, financial and technical support were provided to the **NWT Science Institute's Summer Science Camp**. This camp was held in Pangnirtung and attended by students from various Baffin communities.

Headquarters:

- Geological archives and data, combined with community local and traditional knowledge, were used to put together an **inventory of stone** in the NWT suitable for carving. Approximately 120 locations were determined in this manner.

- Staff participation, and technical and financial support were provided for the **NWT Science Institute's Summer Science Camp**, held on the land near Rae. The camp brought together scientists, TK holders, and children from Yellowknife and Dogrib communities.

- The **Tundra Science Camp** for high school students was established. Some traditional knowledge, in addition to western science, provides students with an opportunity to view the land from a cultural perspective.

- Support was provided to the **Gwich'in Social and Cultural Institute's Delta Science Camp**, which exposed students to traditional knowledge and western science.

- During 1992-1995 the Department supported and assisted in the development of **Community**

Conservation Plans for the Inuvialuit Settlement Region. Wildlife Division staff worked closely with Wildlife Management Advisory Council-funded consultants to complete these useful planning documents.

In administering the **Canada/GNWT Economic Agreement (EDA)**, the Department supported many TK-based projects:

- **Art Africa workshop.** A carver from Fort Smith was sponsored in 1995/96 . His work was displayed and he participated in technical workshops. This is the third year in which the Department has funded the participation of artists in this international event.

- **New markets for NWT arts and crafts.** The Department has provided substantial support to the Northwest Company's marketing efforts to develop the U.S.A. marketplace for NWT arts and crafts. As part of this program, a number of artists were sponsored by the Department to attend official openings at Museum exhibits and to act as interpretative guides at these exhibits to educate the public about traditional lifestyles and the arts industry in the north.

- **Financial assistance to help launch a northern board game.** The Department provided both contributions and loans to a company based in Fort Resolution which was developing and marketing a new board game. The board game is currently being sold in stores in Canada and the U.S.A., and marketed through schools. This is a knowledge-based game in which players try to answer questions themed around the traditional culture and lifestyle of aboriginal peoples.

- **Assistance to aboriginal people**. Financial assistance was provided by the Department to a Metis-owned craft shop in Hay River to promote and sell northern arts and crafts.

- **Dene Cultural Institute**. Under the Department's tourism program, funding is provided annually to the Dene Cultural Institute to operate a Visitor Information Centre at the Hay River Reserve.

- **Fort Smith Mission Park.** This $1.8 million capital project is dedicated solely to the preservation of the traditional culture of the South Slave Dene and Metis.

- **Support to caribou harvesting**. The Department provided financial and logistical support to an organized caribou harvest in Coral Harbour. The program relied extensively on the skills and knowledge which local people have about the land and the local caribou herd. Traditional hunting skills were relied on to harvest caribou.

- **NWT performing arts booking agency**. The agency provided financial assistance and logistical support to traditional performers such as throat singers and drum dancers to stage performances in both national and international venues.

- **Community arts and crafts facilities**. Under the EDA, the Department funded a number

of arts and crafts facilities so that local people would have a place to produce their work and teach each other traditional skills.

All Regions:

- A **trapper training** course using TK has been developed.

- **Department biologists** at headquarters and regions commonly work with experienced community people, who are holders of traditional and local knowledge, in the course of their research studies. This collaboration ranges from logistic support to full participation in research programs.

5. SELF-GOVERNMENT INITIATIVES

How is TK included in governance structures?

Sahtu Region:

- The Renewable Resource Councils are currently involving and adopting traditional knowledge of hunters and trappers to make **wildlife management decisions**.

Kitikmeot Region:

- For the first time in the Kitikmeot, hunter observations and historical information were used exclusively to establish **muskox boundaries and quotas** (Boothia Peninsula and King William Island). This was done in the absence of any collaborative scientific study, as the weight and significance of TK was clearly established. This decision involved HTOs directly in the wildlife management process.

  TK is incorporated into every **wildlife management decision** made jointly by RWED and the Kitikmeot HTA.

Headquarters:

- Many **development projects** undertaken in the past year use traditional knowledge to support local decision-making.

- The Department participates in **self-government negotiations** with aboriginal groups. Traditional knowledge is often discussed as part of land claim/self-government negotiations. We anticipate shared jurisdiction and harvesting to be incorporated in self-government negotiations as they develop. These will include strong traditional knowledge components in decision-making processes.

- The Department actively collaborates with the **Beverly and Qamanirjuaq Caribou**

Management Board and other **co-management boards**. These boards aim to bring the views of renewable resource users and government together in a common inter-jurisdictional forum. The wildlife resource (e.g. caribou) is of prime interest, and the boards attempt to use both science and traditional knowledge to gather information, make decisions, and inform managers and the public.

- The Department (formerly EDT) successfully negotiated with the federal government for the transfer of the delivery and administration of the **Community Futures** program in the NWT. Community Futures provides loans to small businesses and delivers a number of services to small businesses. An integral feature of the program, which EDT wanted to preserve in the transfer, is that volunteer boards are the primary decision makers on loans and other business programming. Unlike other loans programs which tend to rely on strict lending and security criteria, this program takes into account traditional values of local residents. Because decisions are made locally, and because lending criteria is broader in scope, residents are much more likely to receive a loan from this program than they would from a banking institution.

All Regions:

- The Department is actively involved in co-management with aboriginal groups through self-government negotiations and various wildlife management boards.

6. CONSULTATION

Includes the Department's consultation with other dept's, NGO's, and TK holders.

Sahtu Region:

- **Consultation** with young experienced hunters and trappers as well as Elders is valued by regional staff.

- Following a recommendation from a department TK workshop in June 1996 that our biologists include traditional knowledge as part of their literature search when doing projects, there has been increased consultation in the region with Renewable Resource Councils and Dene bands regarding the placing of **satellite collars** on caribou.

Fort Simpson Region:

- Consultation is a fairly constant activity in the region. Specific examples include daily consultation about **fire suppression activities** and community involvement with **timber harvesting** activities.

Kitikmeot Region:

- Area and regional staff consult in person with **community HTOs** and the **Kitikmeot Hunters' and Trappers' Association** daily.

Headquarters:

- The **Waterfowl Project** has continuously sought and used traditional knowledge, which, according to the biologist in charge, has significantly helped our department's understanding of natural history phenomena observed in the Kitikmeot and Inuvik regions.

- Department staff are actively involving Dogrib and Inuit Elders in the consultation for a **co-management plan** for the Bathurst Caribou Herd.

- The TK Coordinator maintains **ongoing contact** with aboriginal cultural organizations, usually by telephone, fax or mail, with occasional meetings to deal with specific issues or projects.

- The TK Coordinator **maintains contact** and occasionally meets with Elders and Elders groups in Nunavut and Western Arctic.

- The TK Coordinator provides **advice to department staff** at headquarters and regions, as well as other agencies, regarding consultation with TK holders and how to access or use traditional knowledge in their work.

- The **Integrated Resource Management Program,** in association with the National Aboriginal Forestry Association, held a workshop on Aboriginal Forest Land Management and Planning with representatives from 11 communities and organizations from the western NWT in 1996.

- **Development Impact Zones (DIZ).** Consultation has been carried out (by former Energy, Mines and Petroleum Resources Department) involving communities & regions to be affected by proposed development activities. Community interests, which may include those of traditional people, are represented through the DIZ process.

- **Nitainlaii Visitor Information Centre, Fort McPherson**. Presents displays of traditional historical lifestyles - harvesting, cooking, medicines, travel, survival, artefacts, crafts. Extensive consultation with and preparation of artefacts by Elders of the community was undertaken.

- **Regional airport displays**. In a programme presently under development, smaller arctic community airport passenger lounges receive a display depicting local culture and lifestyle. Extensive research is undertaken with each community to determine content, and texts are fully bilingual in most locations. Four locations are already installed, nine are being fabricated, and more will be designed in the fiscal year 1997/98.

- The Department was fully participant in the recent **Environmental Assessment Review of the BHP diamond mine**. Several technical reports and submissions, prepared by the Department, were provided to the Panel. In some of these reports, the Department incorporated information about the traditional economy of the NWT and the need for this

segment of the economy to be sustained in the wake of new industrial development. Implicit within these reports is the need to safeguard and encourage the sustaining of traditional knowledge and way of life from which it stems.

- The **Habitat Conservation Project** consulted with various wildlife and resource management boards in Nunavut, Inuvialuit and Gwich'in Settlement Areas and Dogrib Claim Area during 1994-96, to describe the objectives of the project and bring various issues to the boards' attention for deliberation and feedback.

  This project also circulated a discussion paper on caribou calving area protection to the Wildlife Management Advisory Council and the Nunavut Wildlife Management Board (NWMB) in 1995 and that year co-hosted a meeting with the NWMB to discuss Nunavut land administration and government interests. A subsequent paper was widely circulated to stakeholders in 1996; feedback has been received and further direction is pending.

- The **Thelon Wildlife Sanctuary Management Plan** for Nunavut was developed during 1994-96 under the direction of the Akiliniq Planning Committee. Numerous discussions occurred with residents /resource users of Baker Lake and Lutsel K'e. The plan has been accepted by government and currently sits with the Nunavut Wildlife Management Board for ratification.

- Extensive consultation/co-ordination involving all stakeholders has been an integral part of developing a **Management Plan for Bluenose Caribou Herd.** It calls for strong continued participation of traditonal knowledge holders/communities/youth, working jointly with scientists.

All Regions:

- Through the Economic Development Agreement (EDA) consultation process, traditional knowledge was gathered and used in **program designs for economic development**.

- The Department, at all levels and regions, seeks the input of resource users and other community people in its **regular process of consultation.** This process often involves holders of traditional knowledge.

7. ECONOMIC INITIATIVES SUPPORTING TK

Initiatives, grants or contributions that support traditional economy, grants or contributions.

Fort Simpson Region:

- Is running a feasibility study for the establishment of a **sewing centre** and completing a white **birch inventory** around Fort Liard (basket making).

Headquarters:

- **Grants and contributions** provide assistance to individuals and organizations involved in harvesting. These include Disaster Compensation, Workers Compensation for Harvesters, Western Harvesters Support Fund, Nunavut Hunter Income Support Trust, Local Wildlife Committees, Community Harvester Assistance Program and Community Organized Hunts.

- All **wildlife research** by the Department supports the continued subsistence harvest of wildlife.

- The **Fur Pricing Program** helps harvesters ensure that traditional harvesting lifestyles and skills are passed on from one generation to the next. Without such support programs for harvesters at this critical time of changing legislation and import bans against furs, harvesting for a livelihood would be significantly reduced and many traditional land skills would be lost.

- Guidelines for **Demonstration Project funding** administered by the Wildlife and Fisheries Division were expanded to include TK projects.

- Ground work was done toward the establishment of a **special fund** out of Grants & Contributions (as Executive directed all departments to do in TK Policy document) to support traditional knowledge research by northern communities/ TK holders.

All Regions:

- The Department's **business development programs** are flexible and can address the developmental needs of both the wage economy and traditional economies. The following are the key funding sources:

1. The **Grants to Small Business** program, funded at $622,000 per year, is the financial program most often used by the Department to assist individuals engaged in the traditional economy sector. Under a new pilot program, these funds are administered by third parties in one of the administrative regions.

2. In the fiscal year 1996/97 the **Community Initiatives** program was added to the *Business Development Fund* and remains a source of contributions for community economic development.

3. The Department's **Community Futures** program has a revolving loans fund for small business people. It is locally administered.

4. The **Canada/NWT Economic Development Agreement**, although now expired, had several co-operation agreements specific to the development of the traditional economy including Arts and Crafts, Cultural Industries, Traditional Economy, and Wildlife Programs.

5. The **Business Credit Corporation** (BCC) provides loans of up to $1,000,000 to business clients.

8. ABORIGINAL LANGUAGES

Recording and dissemination of traditional knowledge (TK) in an Aboriginal language.

Inuvik Region:

- **Arctic Red River Heritage River, Tsiigehtchic & Gwich'in Territorial Park, Inuvik.** Parks funded an oral history study of traditional land use for an area along the Arctic Red River. An anthropologist worked with local Gwich'in and Inuvialuit people to determine the location and extent of land occupation.

- **Community Interpretive Signs, Ft. McPherson.** Research, interpretation and translation of interpretive signs into the local language was completed with local people either forming part of the prime contract team or being sub-contracted by the prime contractor. In addition, the Gwich'in Language Centre has played a significant role in the development of interpretive text and translation for signs.

- **Fort McPherson Community Signage** presents the community's history to visitors as a self guided tour. Signs are fully bilingual in English and Gwich'in, and use locally sourced historic photographs.

- **Western Arctic Regional Visitors Centre.** Traditional knowledge and local translation services were used to develop interpretive stories used at the centre. The production of some exhibits, such as the replication of a traditional Gwich'in bush camp and an Inuvialuit whaling camp, will also require TK.

- **Eco-Tour Interpretive Exhibits, Tuktoyaktuk.** An interpretive walking tour of the community includes contemporary and traditional knowledge. Text for interpretive panels was researched and translated using local people. Historical knowledge of persons and events was verified at the local level.

Sahtu Region:

- When dealing with Dene hunters and trappers, the Renewable Resource Officer in Deline uses North Slavey in court and other proceedings related to **department enforcement activities** (e.g. occurrence records are written in Slavey). He also delivers all departmental school/community presentations in Slavey.

- The Renewable Resource Officer in Deline, working with the Deline Slavey Learning Centre, jointly translated and interpreted 1995-96 **marten collection data** into North Slavey for community use. The marten study included TK as part of a scientific study. He has also researched and documented **North Slavey terms related to renewable resources**.

Kitikmeot Region:

- Renewable Resource Officers in Kugluktuk, Taloyoak and Cambridge Bay assisted in the collection of Inuktitut and Innuinaqtun terms for a **Renewable Resources Terminology List.**

Baffin Region:

- Initiatives by non-Inuit staff to **learn Inuktitut** have been encouraged.

Headquarters:

- A series of interim reports on ***Inuktitut, Dogrib, and North Slavey Terminology and Concepts Related to Renewable Resources*** was produced in collaboration with the Dene Cultural Institute (DCI) and Nunatsiaq Resources Consulting in 1994. The Department's Traditional Knowledge Coordinator made presentations on this project to North Slave and Kitikmeot regional staff and organized presentations to meetings of biologists & other department staff on the link between language and traditional knowledge.

- **Anik Info Spots** on a variety of topics (e.g. fire, polar bear management, trapping and the traditional economy today) featuring traditional people sharing information in their own languages have been produced.

- A **Place Name Research Project** of Tipjaliup Kunnga (Beverly-Aberdeen Lakes area south of Baker Lake) was contracted in 1996 to provide information pertaining to the Thelon Wildlife Sanctuary Management Plan.

- The TK Coordinator provides a **departmental liaison** with the Department of Education, Culture & Employment's (ECE) *DeneKede* and *Inuuqatigiit* curricula and advice to other agencies and researchers doing related work with aboriginal languages.

- A series of **arts and crafts brochures** was developed by the Department with funding from the Economic Development Agreement (EDA). The brochures explain how arts and crafts are made and their linkages to the tradition and culture of northern aboriginal people. Extensive research of oral and written histories was used to produce the brochures.

- The **Dogrib Interpreter** with the GNWT Language Bureau was invited to make a presentation to staff regarding language, customs and basic "do's and don'ts" in preparation for a TK workshop in the region.

In addition to these activities, information about the Department's programs and initiatives is often translated from English into the aboriginal languages of the NWT.

9. OTHER TRADITIONAL KNOWLEDGE INITIATIVES

Includes specific projects, events, meetings, supporting TK.

Inuvik Region:

- **Use of delta braid in tourism promotional signage/brochures.** TK was used in the production of delta braid by a Ft. McPherson Elder. The delta braid design became the basis of the design graphic on regional marketing brochures and interpretive signs that promote the Dempster Highway.

Fort Smith Region:

- RWED, together with the Dene Bands and Metis Nation in Lutsel K'e and Fort Smith, supports annual **youth camps** held at Lutsel K'e and Powder Lake. The purpose of these camps is to employ youth and introduce them to renewable resource management issues from both a western science and traditional Dene perspective.

Headquarters:

- There was increased effort to include and use traditional knowledge in **department publications**, e.g. *Wild Times* Environment/Conservation Education Newsletter, *NWT's Focus on Forests* Activity Guide on Forests and Forest Management produced in collaboration with ECE *Dene Kede* Curriculum, Project ROCKS series of educational lessons and activities for grades 4-9, and the new *Caribou Cookbook* published jointly with CBC North in 1997.

- **Trap Exchange Workshops** are a key area in exchanging traditional knowledge with inexperienced or first time trappers.

- Implementation funding was provided to the **Gwich'in Traditional Knowledge Study** through allocation of surpluses from the Tripartite Implementation Panel at the request of the departments of Renewable Resources and Aboriginal Affairs.

- Traditional knowledge information was shared with the **Fisheries Resource Conservation Council Education Institute** and other jurisdictions through exchange of information, ideas and publications.

- Traditional knowledge has been integrated in **Prospector Training courses** taught in the communities.

- Department funding to the Beverly and Qamanirjuaq Caribou Management Board provides **annual university scholarships** through the Canadian Northern Studies Trust. Several **theses focussing on traditional knowledge research** have recently been produced by Board-funded students. Two examples are *Community Perspectives, Caribou User Participation and the Beverly-Qamanirjuaq Caribou Management Board* by Anne Kendrick, Department of Geography, Mc Gill University (1994) and *The Communicative Difficulties*

of Integrating Traditional Environmental Knowledge through Wildlife and Resource Co-management by Stella Spak, Carleton University (1995).

- **Kugluktuk airport historical mural.** A wall display in the airport passenger lounge depicts the history of the community and the traditional seasonally nomadic lifestyle of the Copper Inuit.

- The **Arctic Coast Visitor Information Centre, Cambridge Bay** presents graphic displays of the Copper Inuit and Netsilingmiut traditional lifestyles, Inuit languages, and traditional tools and artwork.

- **Liard trail interpretive signage and book.** A series of interpretive signs installed along the Liard Highway, and a guidebook to the Deh Cho Region, describe the traditional lifestyles, bound to the land and the seasons, of the South Slavey people.

- **Twin Falls Park, Fort Smith Region.** A series of interpretive display panels describes local traditional lifestyle, and the spiritual significance of natural features to the Dene culture.

Appendix

Department of Renewable Resources
Current Uses of Traditional Knowledge

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Prepared for the GNWT Department of the Executive

1994

DEPARTMENT OF RENEWABLE RESOURCES
CURRENT USES OF TRADITIONAL KNOWLEDGE

General Comments

The following is a summary of current use of traditional and local knowledge by the Department of Renewable Resources.

Traditional knowledge is an underused resource in the N.W.T. While this is also true for our Department, there are many programs that do use it and the intention is to broaden these efforts. Renewable resources are directly tied to the traditional way of life -- thus traditional knowledge -- of the people of the North, the majority of whom still depend on the land for survival. Our Department, perhaps more than any other, deals with traditional and local knowledge issues on a daily basis. We work to ensure the continuation of traditional lifestyles and our support efforts range from the local to national to international level of activities.

We are finding through practical experience that there is greater success and support for our programs, for example in polar bear research, as we involve expert local hunters. As we use the expertise and knowledge they possess they get a sense of ownership in the work being done and the Department accomplishes what it wanted to do more effectively.

The extent of actual use varies greatly within the regions, communities, and departmental divisions, according to the importance placed on it by local residents as well as the interest and commitment of individual staff. Our field-oriented programs (e.g. renewable resources officers, biologists doing studies) are probably where the greatest use and application of traditional and local knowledge takes place. However, the importance and worth of traditional knowledge as another source of information is growing in recognition amongst our staff, especially as more native northerners who possess some of this knowledge are hired to work for the Department.

In responding to this *Report of the Working Group on Traditional Knowledge*, the Department notes that some of the points raised relate more to a culturally-appropriate way of doing things, such as sensitivity to aboriginal values, rather than traditional knowledge as such. Some of the ways we deal with these considerations in carrying out our mandate are also mentioned below.

Sensitivity to Aboriginal Values

The Department has emphasized the importance of the spring hunting of migratory waterfowl to the federal government in efforts to change the Migratory Birds Convention Act through participation at Wildlife Ministers conferences and consultative intergovernmental processes to develop proposals to amend the Act. In response to these concerns and legal judgements, the federal government has relaxed enforcement of those sections of the Act relating to subsistence use of waterfowl.

The revised Forest Fire Management Policy responds to cultural concerns on forest fire management practices.

Departmental staff sometimes discuss the relationship of local customs to wildlife legislation when deciding how or if to proceed with enforcement actions.

Where animals are collected for scientific purposes, any edible meat that is surplus to sample requirements is provided to aboriginal communities to distribute to needy residents. Efforts are made to respect cultural customs regarding the bodies of animals when doing scientific work in an area. This respect includes honouring the requests for the disposal of furbearer carcasses on the land, maintaining a ban on certain wildlife species or parts if requested by aboriginal communities, and in handling wildlife.

Local concerns are taken into account when planning work in an area. Consultations with community organizations are standard practice for seeking required community support for scientific work. In cases where scientific work is being explained to communities that lack exposure to such work, it can be beneficial to have the project explained to the community by a known and respected elder or hunter who has had involvement with such departmental activities. The Department is working to improve its record in getting information back to communities in a useful format and within a reasonable timeframe.

Due to sensitivities of people on the land and to respect the privacy of individual hunters, we have curtailed attempts to measure harvest effort and socio-economic factors affecting the spring hunt of migratory birds.

The sensitivity question includes an openness to consider interpretations that do not immediately fit into one's personal background of experience and education. Mutual respect between Department personnel and aboriginal communities is the best situation wherein the sensitivity to aboriginal values can thrive.

Definition and Application of Traditional and Local Knowledge

In 1992, the Department established its own Committee on Traditional Knowledge. For the purpose of its work, this Committee came up with the following definitions:

> "Traditional knowledge is ecological knowledge that derives from or is rooted in the traditional way of life of the aboriginal peoples of the N.W.T.
>
> "Local Knowledge may refer to the local expression of traditional knowledge or to knowledge which is geographically based rather than cultural based, such as may be held by any long-time northerner."

The Department realizes the importance of recognizing and using both traditional and local knowledge as both have been gained from prolonged observation and interpretation of the environment and its inhabitants.

In 1990 the Department published *Challenge of Change* in English and Inuktitut. This pamphlet outlines many of the ways in which it uses local knowledge: resource mapping, impact assessment, land use planning, compensation claim evaluations, wildlife disease surveys, wildlife population growth surveys, humane trap testing, harvest and quota management. Local knowledge is relied on for design and location of field studies, harvester surveys, fire response planning and many other activities. The development of joint management boards, through the ongoing evolution of northern government and through the implementation of land claims for self-government, is institutionalizing, to some degree, the involvement of community residents in decision-making and is, therefore, bringing local knowledge forward more consistently, to be blended with scientific knowledge.

However, the involvement of community residents does not necessarily mean that traditional knowledge is collected or used and there is still work to be done to have traditional knowledge accepted on its own merits. In the above-named programs traditional knowledge is sometimes sought and often used but local knowledge is more easily accessible and acquired.

Northern hunters and trappers and their families have spent so much of their lives on the land that they have amassed an extensive body of observation which is organized according to the ecological knowledge received from their elders and teachers. Biologists too must base their science on extensive observation. The linkage between the different kinds of knowledge depends upon developing an understanding between them, of the different interpretations for behavioral or ecological relationships.

Traditional knowledge is less formally used by the Department for a number of reasons. The two knowledge systems (traditional and western science) have similar objectives: the continued wise use of wildlife and the land. The differences are partly due to language, concepts and jargon, gaining access to each system organization of information within each system and understanding and valuing the contribution of each (Gunn, Arlooktoo, Kaomayok). The Department is working towards placement of regional biologists in the regions and enhanced responsibilities given to HTA's and management boards for management decisions such as quota allocations and enforcement of conservation practices. However, no formal or informal mechanism exists within the Department at this time to guarantee the use of traditional knowledge information that may have been gathered or brought forward at the community or regional level in terms of decision making. The need has also been identified to improve ways of getting back to people in communities to let them know how we may be using their knowledge in the workings of the Department.

The Department of Renewable Resources depends heavily on local knowledge and also consults community residents (sometimes elders) regarding traditional knowledge. In our work there is a functional differentiation between local and traditional knowledge, though no distinct demarcation of where one ends and the other begins.

In practical application, local knowledge is sought and gathered by the Department regarding such matters as animal distributions, environmental conditions and patterns, harvest patterns, social dynamics and so on, in the present or relatively recent past. Traditional knowledge, which has been passed down through generations, provides us with insight and information on long-term patterns or trends in areas such as animal distribution and behaviour or environmental conditions over time and possible rationales for their occurrence. How or if this information is gathered and used is left largely up to the individual staff member. Traditional knowledge is relied upon by most renewable resource officers and many field staff. It is used by some managers and some biologists.

Depending on the personality and skills of the staff member, local and traditional knowledge may be sought out just to increase this person's knowledge. This kind of exchange depends on having opportunities to converse, language abilities or access to interpretation, available time and to some degree, some familiarity with methods of cross-cultural "listening," and as well as a foundation in or sympathy for, other kinds of thought-processes, organization or use of information.

Use of Traditional and Local Knowledge in Divisions and Directorate

WILDLIFE MANAGEMENT

Some projects using traditional and local knowledge are:

- polar bear research and management, including the development of twelve (12) Polar Bear Management Agreements with communities;
- furbearer studies: advice on trap placement, set design and bait (Fort Providence); as well, interpretation of observations on animal abundance and movements is incorporated in departmental reports and recommendations for management on all animal species that are trapped for fur in the N.W.T.;
- waterfowl project: where, when and how field studies are carried out (Inuvik and Kitikmeot Regions) and new opportunities to observe areas and patterns of waterfowl use. Learning Inuktitut names for birds has contributed to greater knowledge about bird calls.

Past projects included providing support to traditional users in proposing a bowhead whale sanctuary at Isabella Bay near Clyde River. Traditional knowledge is used to select areas for the scientific study of a particular species. The traditional knowledge of distribution, abundance, and movement of animals in many cases ensures that an appropriate area is chosen for study. In some projects, behavioral observations and comments on the general ecology of a species by aboriginal people are used in planning and conducting research. The objective is not to use traditional knowledge just for the sake of using it, but to use the best available information to accomplish the task at hand.

Biologists often use local field assistants who are usually chosen on the basis of their skills on the land in areas such as travelling, tracking, trapping, and camping and for their expertise on the species of interest. If possible, use is made of aboriginal language in the course of field studies and serves to encourage the flow of traditional knowledge sharing. In some situations, the scientific personnel are outnumbered by the aboriginal field staff and are immersed in aboriginal culture.

Wildlife management plans include objectives and strategies for including traditional knowledge in managing wildlife.

CONSERVATION EDUCATION/RESOURCE DEVELOPMENT

The Traditional Knowledge Coordinator coordinates work on this issue and chairs the departmental Traditional Knowledge committee, which is currently putting together a short and long-term Action Plan.

The illustrated activity book series Let's Go Hunting, Let's Go Fishing, Let's Go Trapping, which teaches children in grades K-6 about traditional lifestyles, was produced and is now being reprinted. A number of other publications, such as A Way of Life, "This Land is our Life," People and Caribou in the Northwest Territories, and "Our Daily Bread" document traditional lifestyles and to some extent knowledge and values of the N.W.T. residents.

Financial and staff assistance are provided to the annual cross-cultural Science Camps organized by the N.W.T. Science Institute (North Slave and Baffin Regions). This project brings together traditional knowledge holders and scientists as teachers of young people.

Ways are being examined to add traditional knowledge components or context to the Department's environmental day camp program (Yellowknife) and Project Wild activities, which provide training to teachers throughout the N.W.T. about environmental issues.

Through its Demonstration Project program the Department provides support and limited financial assistance to community organizations, such as Hunters' and Trappers' Associations, and individuals who wish to undertake small community-based renewable resource development projects. Approximately 15% of the projects funded since this program was initiated in 1989, have included a traditional knowledge component. Some of the projects funded have included: Arctic char enhancement near Clyde River, a caribou survey on eastern Baffin, several demonstration traplines, a marten project and youth-oriented traditional lands skill project near Fort Franklin, a small traditional tanning operation in Lutsel K'e and several traditional harvesting trail enhancement projects in the area around Great Slave Lake.

OTHER DIVISIONS

Efforts are underway to incorporate traditional knowledge of forest-related issues in a K-12 curriculum being developed by the **Forest Management Division**. The **Pollution Control Division** has used traditional knowledge in making management decisions and in researching and evaluating environmental changes over time to determine how people are affecting the environment (e.g. Clyde River, PCB testing, locating areas where chemical pollution has occurred in order to be cleaned up.)

To illustrate the applied use of both science and traditional knowledge in the Department we can cite the approach that is taken in both **Wildlife Management** (resource co-management boards) and the **Policy and Planning Division** (Sustainable Development Policy).

The **Policy and Planning Division** is involved in initiatives such as the Slave River Monitoring Program and water management issues which have sought input from traditional users. This Division has supplied financial and technical advice to community efforts to assess environmental impacts of the Great Whale Hydroelectric Project (Sanikiluaq). It consults with community representatives and resource users for advice and information on various initiatives. This information and advice is used when making recommendations to the Minister or other senior officials.

SAHTU

The Renewable Resources Officer in Deline (Fort Franklin) is bilingual, from the community, and uses the North Slavey language 60% of the time when speaking with natives. He also reads and writes Slavey. His knowledge of the language is very important in being able to use and access information relating to traditional place names and descriptions of areas on his patrols and daily work. These names contain information on traditional resource use and knowledge about the land, animals, and environment as well as history. There is interest in researching and documenting traditional Dene techniques for wildlife management and producing a map with traditional names. The Project Marten Ban, presently in its second year, was started with the use of traditional knowledge from the Hunters' and Trappers' of Deline.

In other communities of the region, traditional knowledge is used daily, whenever there is contact with a resource user. The knowledge of trappers is used by Officers when conducting patrols to traplines. Slavey place and area names are used on a regular basis throughout this region.

KITIKMEOT

Traditional knowledge and Renewable Resource program delivery: Close working relationships with the HTA's help ensure the integration of traditional knowledge into program development and implementation. An example is the Coppermine River net exchange program in 1992 when local people identified a conservation problem (declining char stocks) and accepted an exchange of small mesh nets for larger mesh nets. In Pelly Bay, the advice of the elders was accepted by the HTA to close the Kellett River to commercial fishing in 1992 to conserve stocks. A further example of where traditional knowledge combined with scientific monitoring to lead local people themselves to take conservation measures was the closure of Grenier Lake at Cambridge Bay to nets except for elders.

Traditional knowledge and Wildlife Management: The wildlife management programs are committed to integrating traditional and scientific knowledge through intensive efforts to share knowledge by travelling on the land with hunters and at HTA meetings. We have incorporated traditional knowledge of wildlife distribution into planning for and interpreting results from caribou and muskox surveys. We have also adapted our techniques to use the ecological knowledge and traditional hunting skills of the Inuit in, for example, the capture and immobilization of muskoxen. To respect cultural sensitivities such as those relating to the handling of wildlife, we have modified our marking methods. The Inuit understanding of ecology and anatomy has assisted cooperative programs to collect animals to monitor their health and conditions. We have also used interviews (by a local person in Inuktitut) to gather knowledge on specific spots. We have intensified efforts to ensure that shared knowledge is made available to the communities through posters. Since 1988, we have produced, for a wider distribution, reports of five specific programs to acquire and integrate traditional knowledge.

1. Gunn, A., and G. Arlooktoo and D. Kaomayok. 1988. The contribution of the ecological knowledge of Inuit to wildlife management on the Northwest Territories. In: M.M.R. Freeman (ed.). Knowing the North: integrating tradition, technology and science. Boreal Inst. Northern Studies Occasional Publication no. 23.

2. Gunn, A., G. Arlooktoo, J. Ashevak, L. Jones and D. Kaomayok. 1991. Polar bear denning surveys in the Kitikmeot Region, 1977-86. NWT Renewable Resource Manuscript Report No. 46.

3 Gunn,A. 1991. Denning survey for barren-ground grizzly bears, Coppermine, October 1984, and implications for a commercial quota on the Coronation Gulf mainland. NWT Renewable Resources Manuscript Report No. 46.

4. In Cambridge Bay, elders were asked to contribute their knowledge on the hunting and ecology of ptarmigan as well as their views on a proposed commercial harvest. Gunn, A. 1992. Experimental commercial harvest of ptarmigan, Kitikmeot Region, 1989. NWT Renewable Resources Manuscript Report No. 47.

5. In the eastern Kitikmeot communities, elders were asked for their knowledge of the disease brucellosis and whether they knew if it was a recent disease - a vital question in considering the epidemiology of the disease.

   Gunn, A., T. Leighton and G. Wobeser. 1991. Wildlife diseases and parasites in the Kitikmeot Region, 1984-90. NWT Renewable Resources File Report No. 104.

6. Elders in Taloyoak and Pelly Bay were invited in interviews to describe the historic distribution of muskoxen and why they disappeared. The report is currently being written.

7. Elders in Holman were invited in interviews to describe the historic distribution of wolves and how their numbers have changed over the last few decades. The report is currently being written.

8. Hunters and elders in Bathurst Inlet and Coppermine are being currently asked to contribute their knowledge of wolverine ecology and their traditional conservation practices such as no-hunting sanctuaries.

FORT SIMPSON

Traditional knowledge is used by senior management in making decisions on renewable resource issues. Elders are used in conservation education related activities.

Other ways in which traditional knowledge is used include:

- preparing for and assessing conditions during travel on the land;
- knowing to split wood when it is cold;
- responding to cultural customs or needs (e.g., returning marten carcasses after collecting samples).

Respected harvesters are consulted and people who practice traditional knowledge.

FORT SMITH

Traditional knowledge is used in many programs.

The type of information collected includes:
- wildlife abundance, behaviour, habitat use and movement patterns;
- fish abundance
- timing and location of fish spawning areas;
- how to trap furbearers (using available materials);
- use of plants by wildlife and for medicine;
- hunting and trapping travel routes;
- cabin building;

- forest fire history;
- weather patterns;
- forest ecology and forest uses;
- values at risk;
- hunting and trapping area.

Traditional knowledge is used in:

- designing research projects (e.g., determining questions to answer, best time or location to do work, etc.);
- preparing for an assessing conditions during travel on the land;
- determining forest fire management practices and values-at-risk.

Most of the information is collected during informal discussions with residents when having tea or travelling with people out on the land; through interviews and during public consultation. It is collected from respected hunters and trappers; community residents and organizations of staff who live in a community; elders or those close to elders; by asking people who practice traditional knowledge.

Sometimes a person's familiarity with or expertise in traditional knowledge is a factor in that person being hired as a casual employee, especially if assisting with field projects and travelling on the land.

In addition to memory, staff also record traditional knowledge in reports, field notebooks, GIS, databases and maps.

NORTH SLAVE

Traditional knowledge is used by officers, especially when travelling on the land. Special projects to use, teach and promote traditional knowledge are being considered, as well as putting together a resource list of traditional knowledge holders who have expertise in areas of particular interest to the Department.

The Resource Management Planning section of the Yellowknife Field office is currently in the stages of initiating a Community Based Resource Management Planning Program in the North Slave Region. With regards to participation in traditional knowledge and aboriginal language, one major aspect of this program includes the establishment and maintenance of an information system with band councils, tribal councils, individuals and other non-government organizations to identify, prioritize and assist in the incorporation of traditional knowledge into current GNWT Renewable Resources programs.

This effort will be undertaken through various means, most notably through travel to and direct contacts in the communities and out on the land for traditional resource use information gathering. This traditional knowledge information gathering process consists of the interviewing and recording orally, in written form and on maps of any information regarding traditional resource use which would include: traditional place names, descriptions and resource values,

traditional seasonal terrestrial and aquatic animal harvesting information, traditional knowledge of animal habitats, traditional travel routes, traditional forestry and plant resource utilization, spiritual/cultural areas.

This information will be gathered over a period of time and placed within a micro computer and Geographic Information System storage facility that would accommodate for easy retrieval for resource management decision making processes, such as for resource user conflict resolution and community economic development decisions.

BAFFIN

Traditional knowledge is widely used in this region. One example is in polar bear research, where we are testing the use of dogteams and hunters as an alternative to helicopters to immobilize polar bears for research studies. This has proven to have beneficial results all around: increased efficiency, reducing costs, greater understanding of program by communities and recognition of importance of traditional knowledge for practical purposes by the Department.

Scientific research in south Baffin is confirming information gathered from elders regarding movement patterns of caribou. This is an important discovery because it is showing predictability (such as where the caribou will go, when and under which conditions), which has been a point of contention in deciding how to use traditional knowledge.

Traditional knowledge has been collected through interviewing hunters to develop a booklet on distinguishing male from female polar bears in order to reduce the harvest of female bears. Another booklet is being developed on diseases in caribou. This is a joint effort of local hunters and the Renewable Resources Officer in Pond Inlet, using traditional as well as scientific information. It will be written first in Inuktitut and translated into English.

KEEWATIN

In the normal course of delivering their programs and services, the Keewatin Regional Office of Renewable Resources consults on a regular and frequent basis with Hunters and Trappers Organizations. In addition, whenever practical, aboriginal residents are invited or hired to participate in the biological field studies. All materials developed for the benefit of the community are translated into the aboriginal language.

Before field studies are initiated, the regional biologist seeks the support and approval of the Keewatin Wildlife Federation and, when appropriate, the Beverly and Kaminuriak Caribou Management Board. Then the proposed field study is subject to the Wildlife Research Permit process where the proposal is reviewed and approved by the Hunters' and Trappers' Associations of affected communities. The regional biologist meets with Hunters' and Trappers' Associations throughout the study to give them an update on the study, answer questions and generally exchange information on experiences with wildlife.

When planning patrols, Wildlife Officers routinely consult residents with regards to: learning about the movements and location of wildlife species, typically caribou; and the feasibility and safety of conducting a trip: for example, where is the safest location for crossing river ice, what landmarks are available, what is the condition of the sea ice, what type of local weather patterns can be expected, etc.

Departmental officials interviewed hunters and elders from Coral Harbour. They were interested in residents' knowledge, concerns and viewpoints on caribou populations on Southampton Island. The department has an interest in better understanding the population dynamics of caribou on the island. Currently the caribou population is undergoing a rapid increase in numbers of animals.

In developing a management plan for polar bears, departmental officials have visited each community in the Keewatin Region to talk to hunters and elders. They were interested in the hunters' and elders' experiences with polar bears, any type of change they had observed with regards to polar bears and concerns with regards to the department's management scheme. Questionnaires were also distributed. The questionnaires described how polar bears are managed by the department and asked for feedback on the management approach.

Traditional Perspective on Use of Caribou Meat and Wastage: The Department is considering an initiative to develop an understanding of what aboriginal people consider appropriate uses for caribou meat. The goal is to resolve differences in cultural perceptions of what constitutes wastage of caribou meat. For example:

* Residents in the community of Baker Lake would like to feed caribou meat to their dogs. This action is currently prohibited under the Northwest Territories Wildlife Act; and

* Sometimes residents store caribou carcasses on the roof of their homes in winter. Over the course of the winter the meat on the carcass is exposed to sunlight, radiation and wind which reduces the quality of the meat. In the spring, large numbers of caribou return to the Keewatin and thereby offer fresh high quality meat. Meat from carcasses stored on the rooftops are less appealing and sometimes is discarded.

Infractions and Charges: When considering a potential infraction under the Wildlife Regulations, Wildlife Officers will consult with locals to determine whether a particular activity is an acceptable local hunting technique. For example:

* In the fall, Keewatin hunters may shoot 5 or 6 caribou and cache the carcass under rocks, allowing the meat to begin to spoil. Under the Wildlife Regulations this could be considered wastage of meat. However, residents consider this a traditional practice which enhances the taste of the meat, also described as souring or blooming of the meat taste;

* The use of beluga meat for dog food is an acceptable traditional practice in the east but not in the west.

Using Traditional Knowledge To Design Field Studies: In preparation to conduct field studies, the regional biologist will routinely consult with hunters and trappers. The hunters and trappers are often a good source of information on wildlife distribution, habitat use and general observations of animal conditions (e.g. fat levels) and behaviourial patterns (e.g. timing of calving, post-calving movements, etc.). Such information often increases the success and effectiveness of departmental field studies.

Sometimes the concerns or questions of hunters and trappers may lead the biologist to question his/her own assumptions. For example, to gather information on the structure of polar bear populations, biologists routinely extract the pre-molar tooth of drugged bears. Biologists believe this small tooth, located behind the large canines, is obsolete from a functional perspective. Some Inuit hunters, however, suspect the tooth may help the bear in making initial incisions into the hide of captured seals.

When Wildlife Officers find an animal killed by a hunter, they can often tell by the way the carcass was handled whether the hunter was native or non-native, experienced or inexperienced.